

Title: WAFER ENGINE
Docket No.: ASYS8196US0
Serial No.: Unknown
Confirm No.: Unknown
Filed: Herewith

Inventor(s): Anthony C. Bonora et al
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Express Mail No.: EL670726207US
Sheet 1 of 35

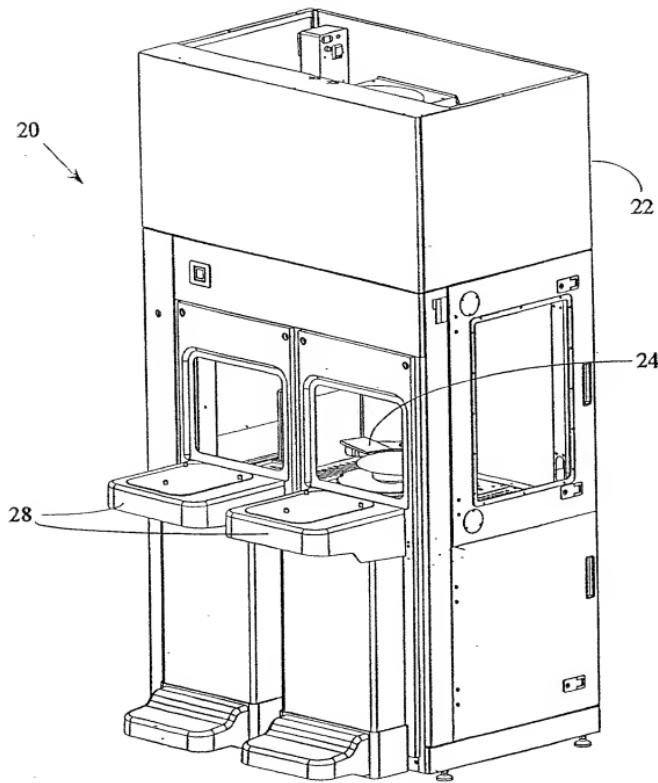
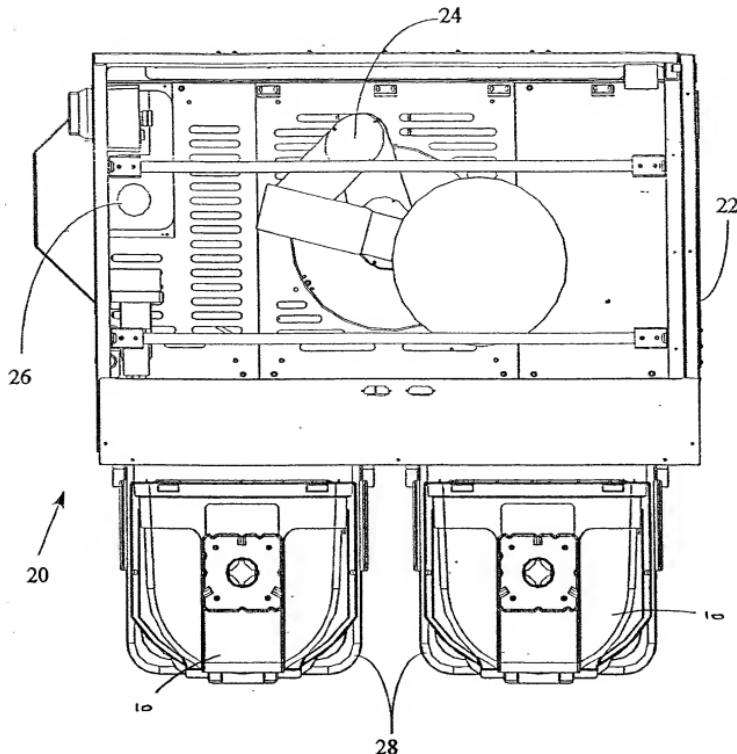


FIG. 1

Title: WAFER ENGINE
Docket No: ASYS8196US0
Serial No.: Unknown
Confirm No: Unknown
Filed: Herewith

Inventor(s): Anthony C. Bonora et al.
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Express Mail No: EL670726207US

Sheet 2 of 35



10087400-030102

Title: WAFER ENGINE
Docket No: ASYS8196US0
Serial No.: Unknown
Confirm No.: Unknown
Filed: Herewith

Inventor(s): Anthony C. Bonora et al.
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Express Mail No: EL670726207US

Sheet 3 of 35

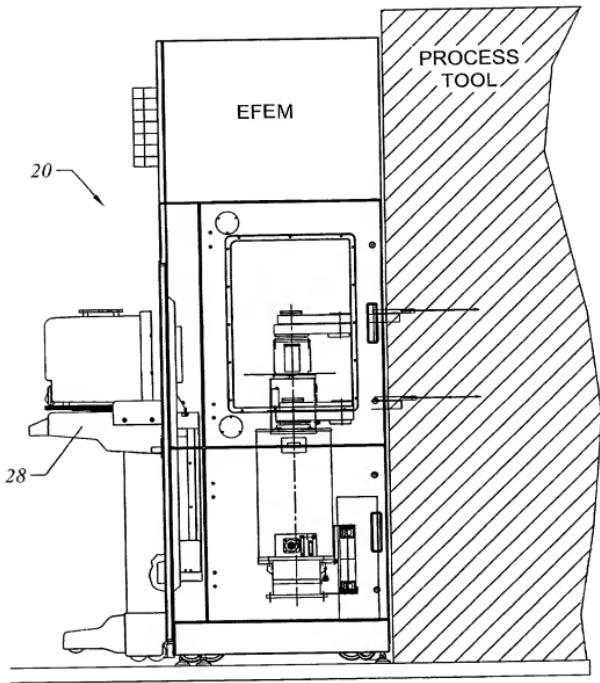


FIG. 3

104527490 · 030102

Title: WAFER ENGINE
Docket No: ASYS8196US0
Serial No.: Unknown
Confirm No: Unknown
Filed: Herewith

Inventor(s): Anthony C. Bonora et al.
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Express Mail No: EL670726207US

Sheet 4 of 35

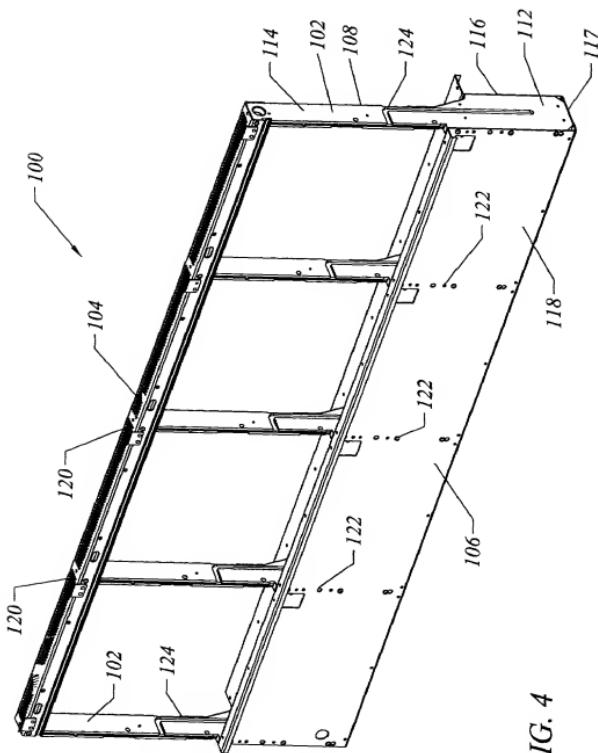
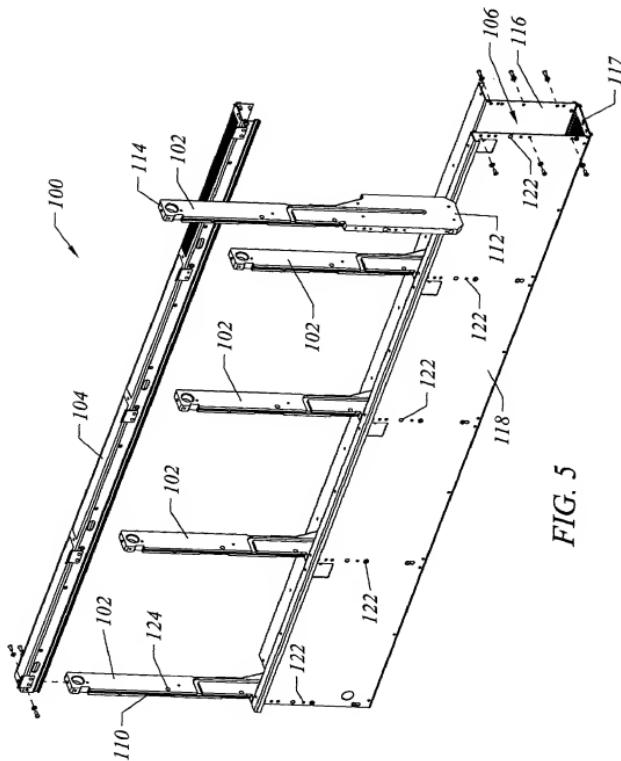


FIG. 4

Title. WAFER ENGINE
Docket No. ASYS8196US0
Serial No.: Unknown
Confirm No.: Unknown
Filed. Herewith

Inventor(s) Anthony C Bonora et al
Attorney. Scott D. Sanford
Phone: (415) 362-3800
Express Mail No.: EL670726207US

Sheet 5 of 35



20100-0042800T

Title: WAFER ENGINE
Docket No.: ASYS8196US0
Serial No.: Unknown
Confirm No.: Unknown
Filed: Herewith

Inventor(s) Anthony C. Bonora et al.
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Express Mail No: EL670726207US

Sheet 6 of 35

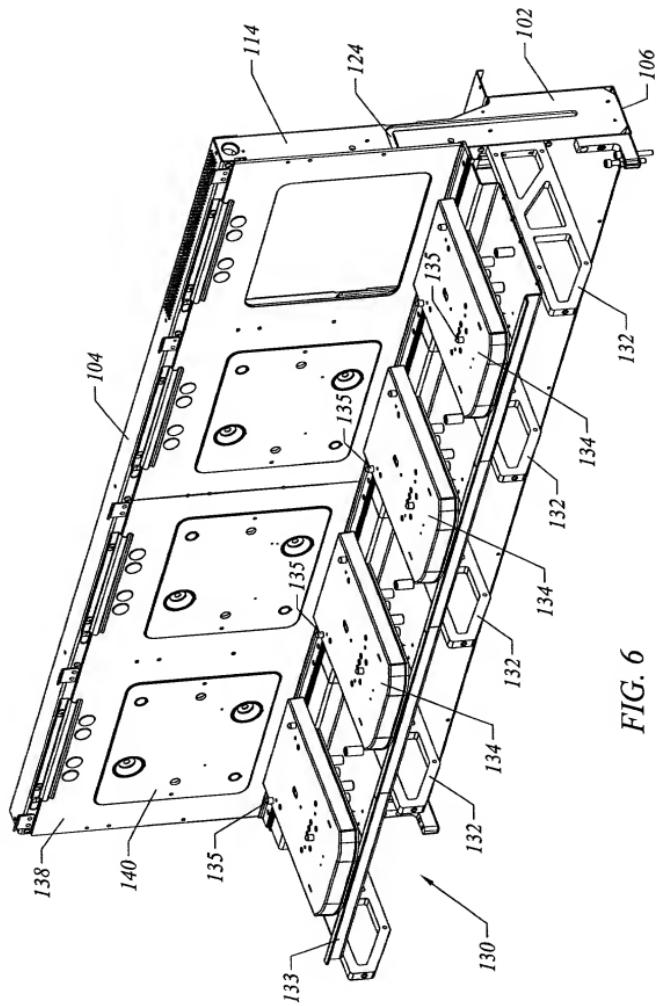


FIG. 6

Title: WAFER ENGINE
Docket No: ASYS196US0
Serial No.: Unknown
Confirm No: Unknown
Filed: Herewith

Inventor(s) Anthony C. Bonora et al.
Attorney Scott D. Sanford
Phone. (415) 362-3800
Express Mail No. EL670726207US

Sheet 7 of 35

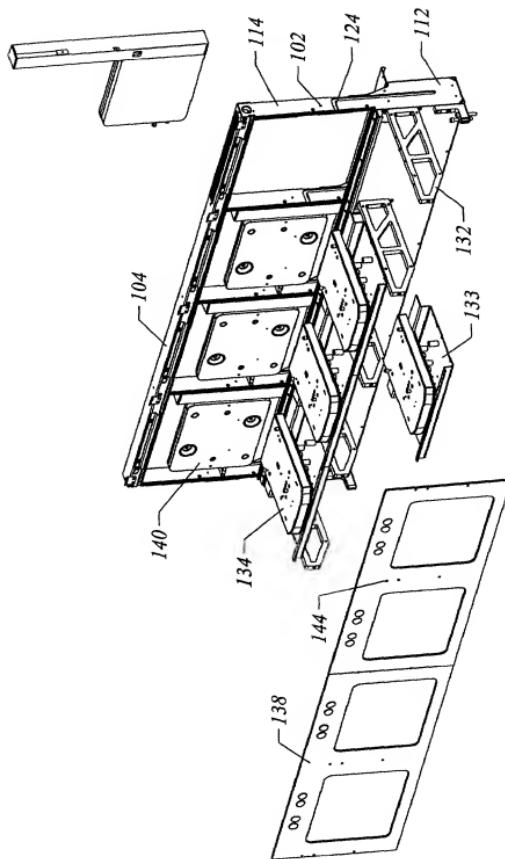


FIG. 7

Title WAFER ENGINE
Docket No ASYS8196US0
Serial No.: Unknown
Confirm No. Unknown
Filed: Herewith

Inventor(s) Anthony C Bonora et al
Attorney Scott D Sanford
Phone: (415) 362-3800
Express Mail No. EL670726207US

Sheet 8 of 35

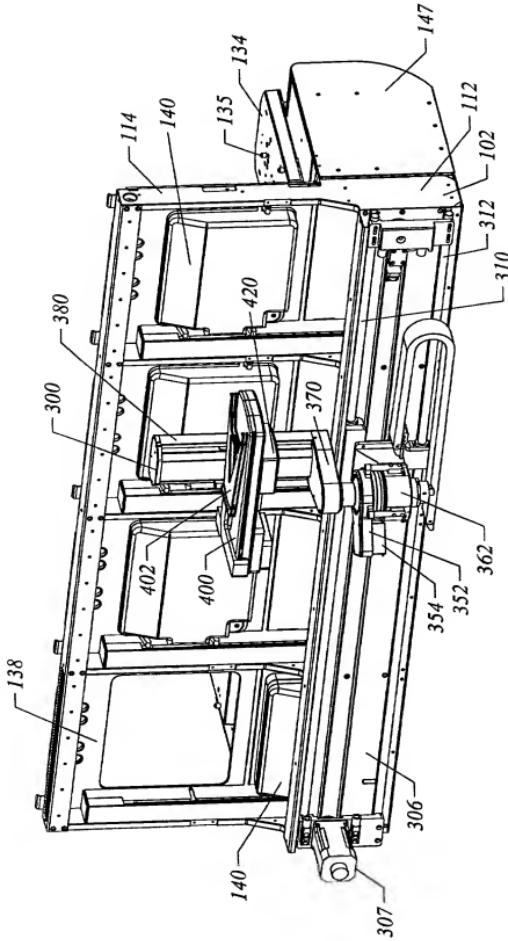


FIG. 8

Title: WAFER ENGINE
Docket No. ASYS8196US0
Serial No. Unknown
Confirm No. Unknown
Filed Herewith

Inventor(s) Anthony C. Bonora et al
Attorney: Scott D. Sanford
Phone (415) 362-3800
Express Mail No.: EL670726207US

Sheet 9 of 35

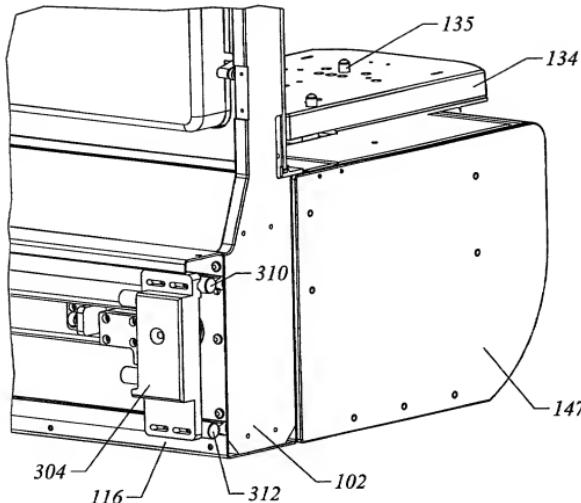


FIG. 9

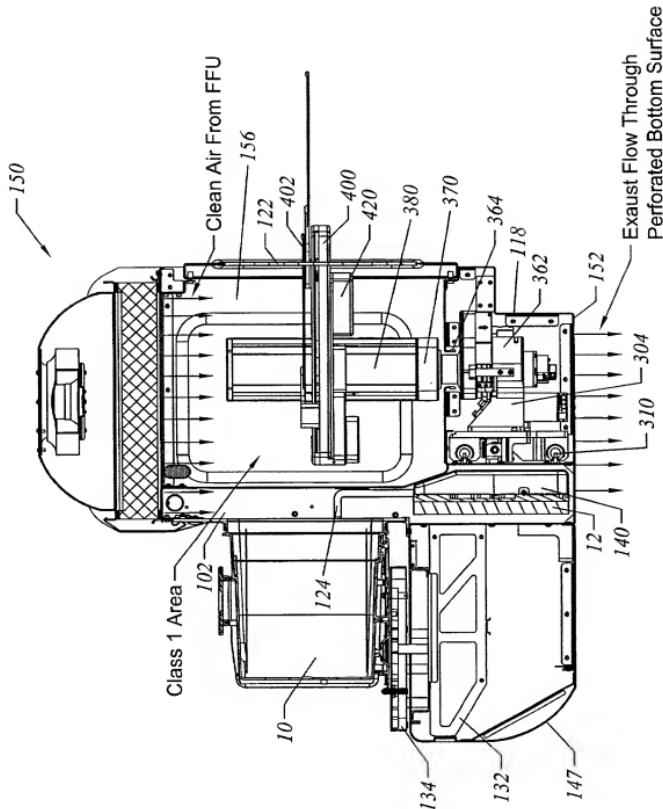


FIG. 10

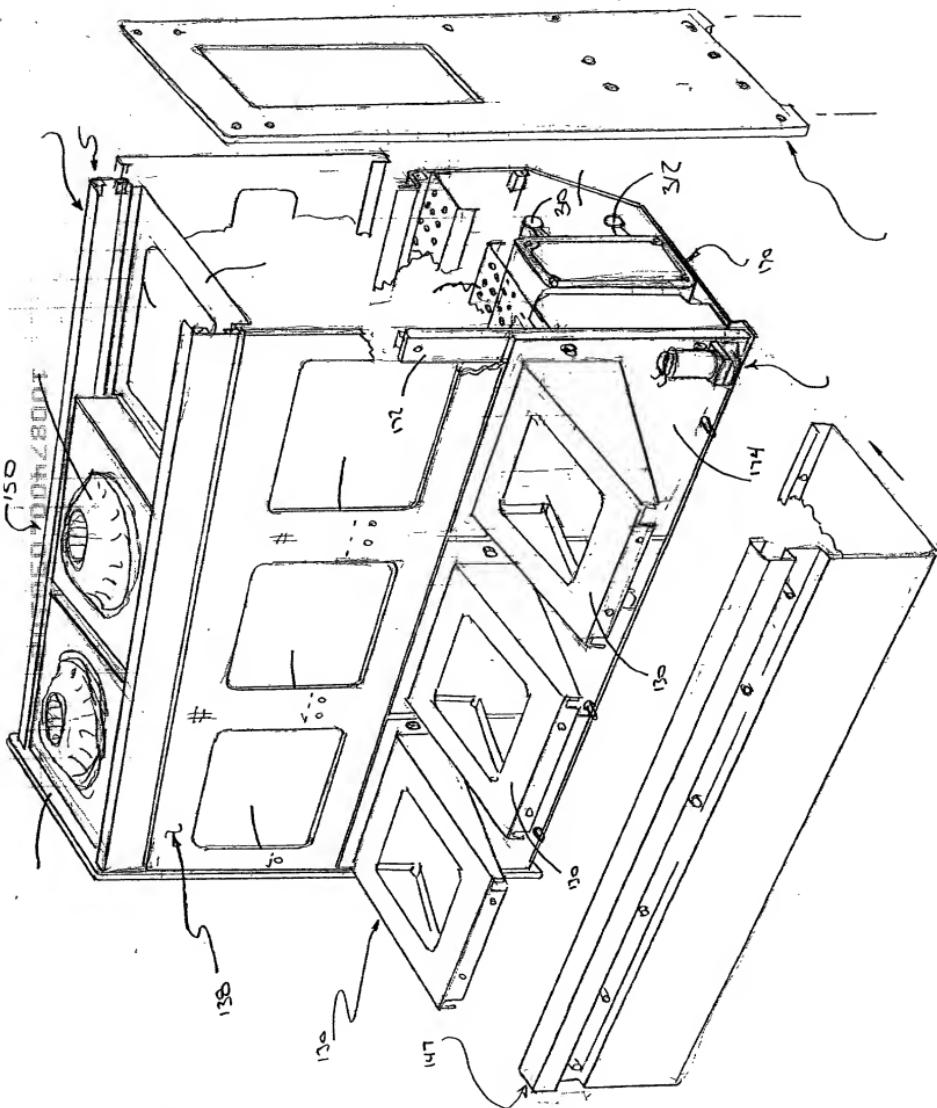


FIG. 11

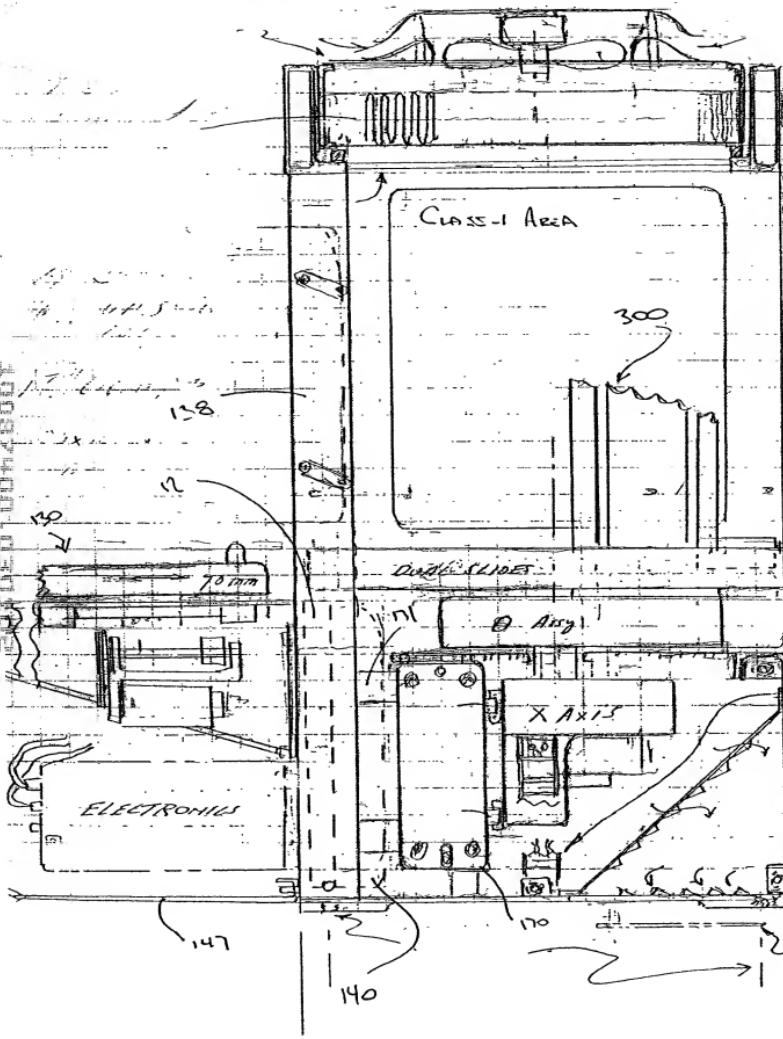


FIG. 12

Title: WAFER ENGINE
Docket No : ASYS8196US0
Serial No.. Unknown
Confirm No: Unknown
Filed: Herewith

Inventor(s). Anthony C. Bonora et al
Attorney Scott D. Sanford
Phone. (415) 362-3800
Express Mail No. EL670726207US

Sheet 13 of 35

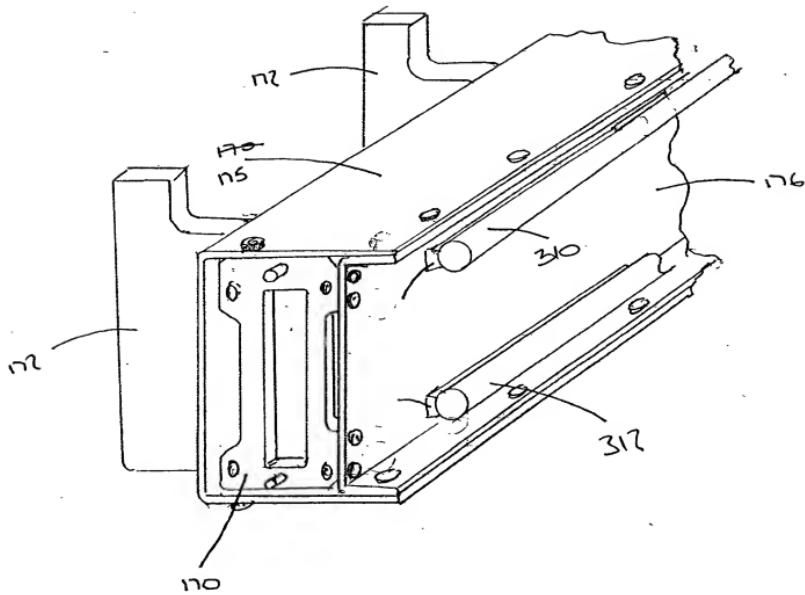


FIG. 13

三〇三

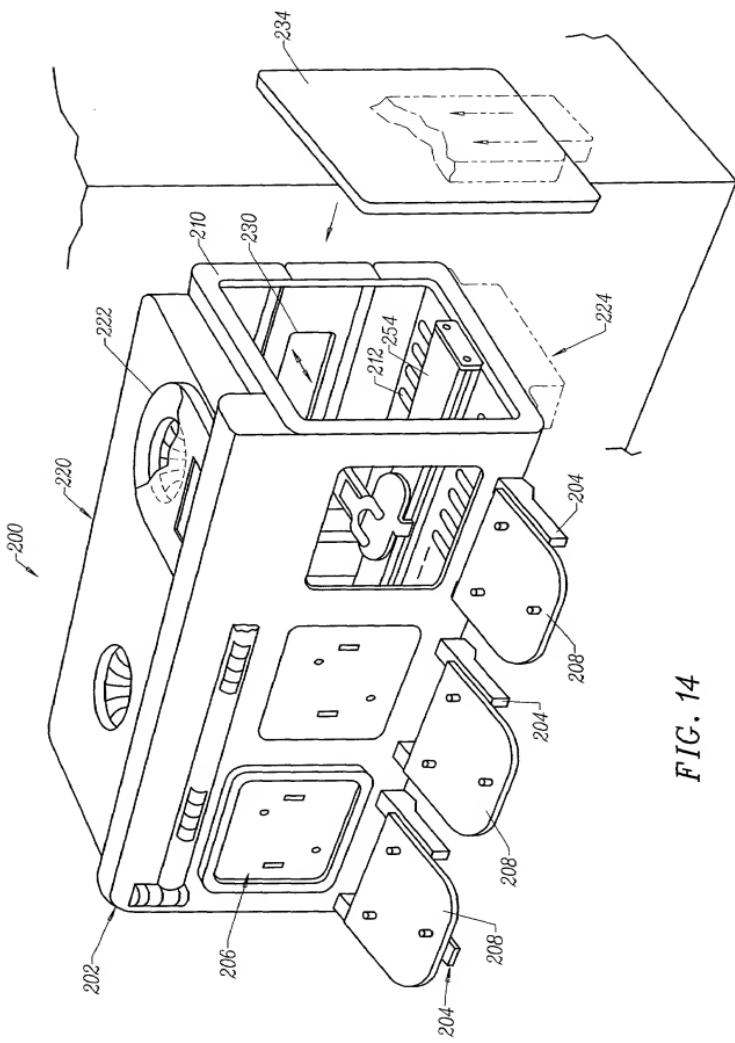


FIG. 14

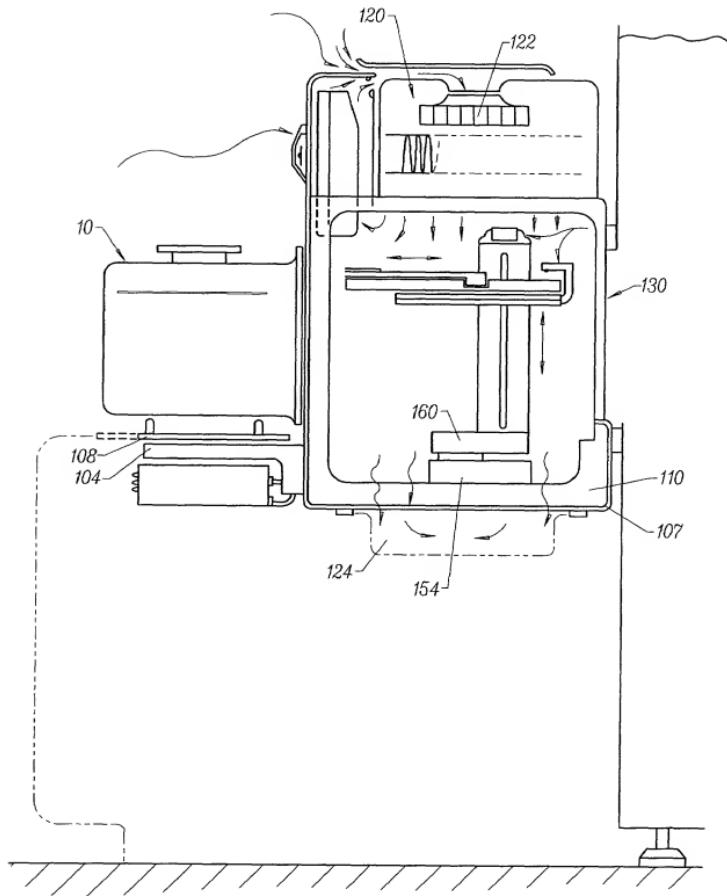


FIG. 15

Title: WAFER ENGINE
Docket No: ASYS8196US0
Serial No: Unknown
Confirm No: Unknown
Filed: Herewith

Inventor(s): Anthony C. Bonora et al.
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Express Mail No: EL670726207US

Sheet 16 of 35

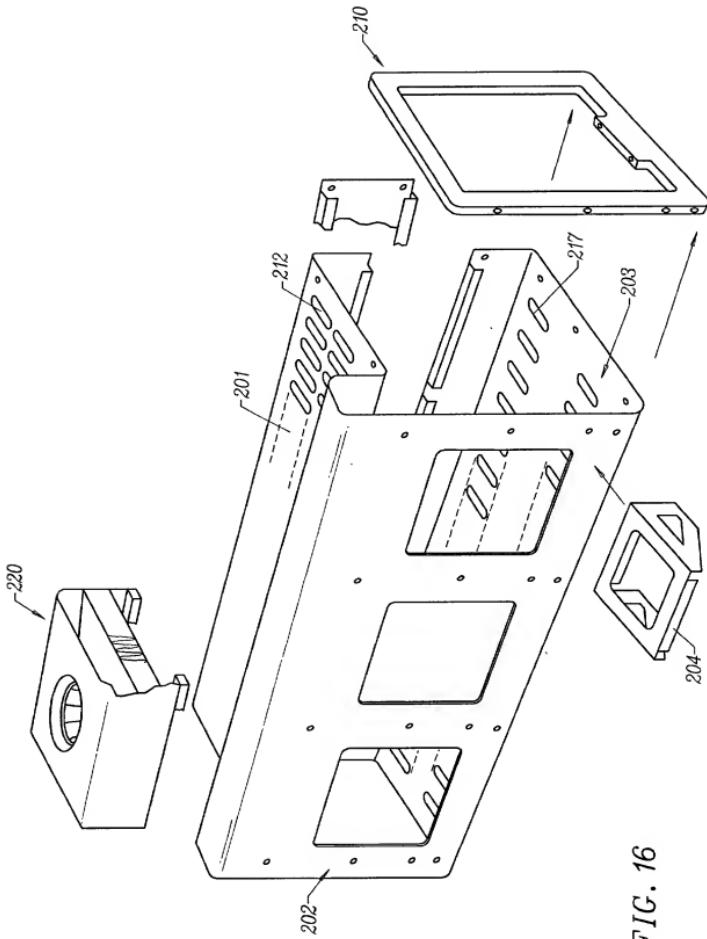


FIG. 16

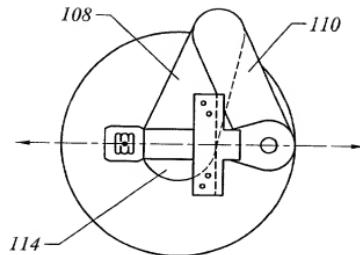


FIG. 17A
(Prior Art)

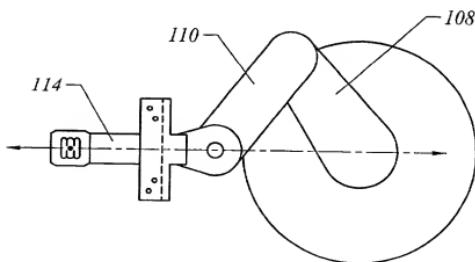


FIG. 17B
(Prior Art)

Title: WAFER ENGINE
Docket No: ASYS8196US0
Serial No: Unknown
Confirm No: Unknown
Filed: Herewith
Inventor(s) Anthony C. Bonora et al.
Attorney: Scott D. Sanford
Phone: (415)362-3800
Express Mail No: EL670726207US

Sheet 18 of 35

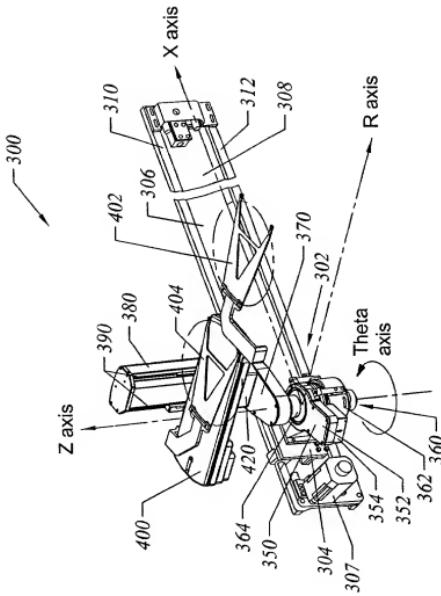


FIG. 18

Title WAFER ENGINE
Docket No.: ASYS8196US0 Inventor(s): Anthony C. Bonora et al
Serial No.: Unknown Attorney: Scott D. Sanford
Confirm No.: Unknown Phone: (415) 362-3800
Filed: Herewith Express Mail No.: EL670726207US
Sheet 19 of 35

Sheet 19 of 35

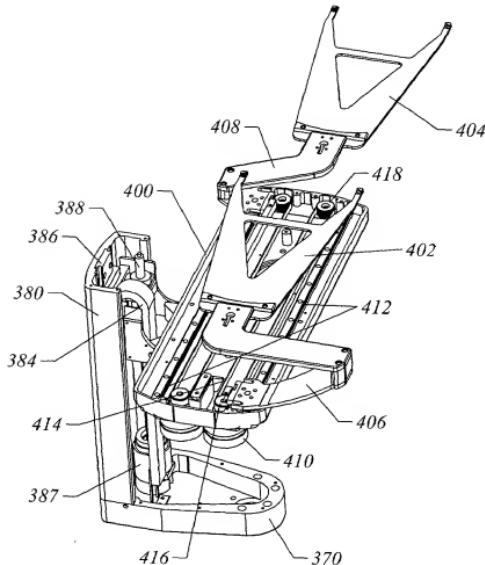


FIG. 19

2007-04-04 14:42:30

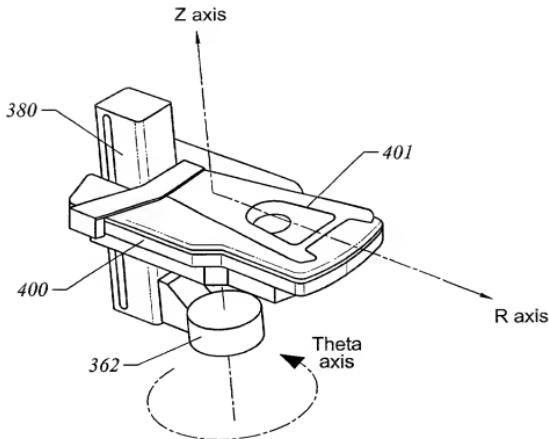


FIG. 20

Title: WAFER ENGINE
Docket No: ASYS8196US0
Serial No.: Unknown
Confirm No: Unknown
Filed Herewith

Inventor(s) Anthony C. Bonora et al
Attorney: Scott D. Sanford
Phone (415) 362-3800
Express Mail No: EL670726207US

Sheet 21 of 35

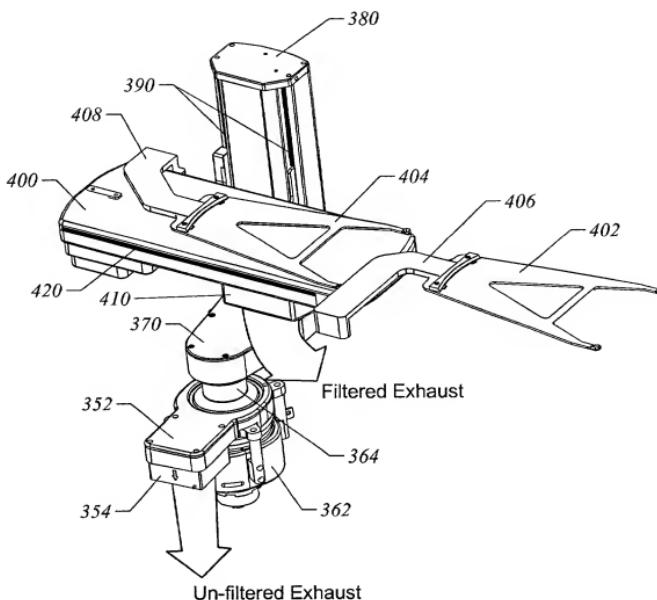


FIG. 21

Title: WAFER ENGINE
Docket No.: ASYS8196US0
Serial No.: Unknown
Confirm No.: Unknown
Filed: Herewith

Inventor(s): Anthony C. Bonora et al.
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Express Mail No: EL670726207US

Sheet 22 of 35

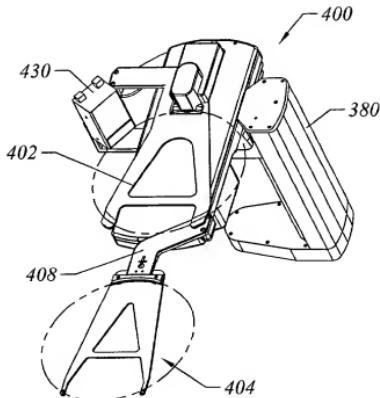


FIG. 22A

Title: WAFER ENGINE
Docket No: ASYS8196US0
Serial No.: Unknown
Confirm No: Unknown
Filed: Herewith

Inventor(s): Anthony C. Bonora et al.
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Express Mail No: EL670726207US

Sheet 23 of 35



FIG. 22B

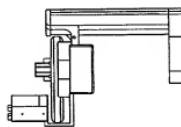


FIG. 22D

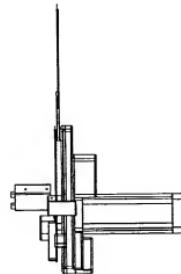


FIG. 22C

Title: WAFER ENGINE
Docket No.: ASYS8196US0
Serial No.: Unknown
Confirm No.: Unknown
Filed: Herewith

Inventor(s): Anthony C. Bonora et al.
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Express Mail No.: EL670726207US

Sheet 24 of 35

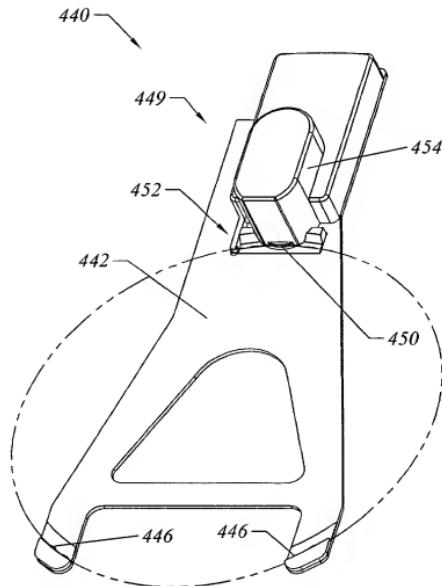


FIG. 23

Title: WAFER ENGINE
Docket No.: ASYS8196US0
Serial No.: Unknown
Confirm No.: Unknown
Filed: Herewith

Inventor(s) Anthony C. Bonora et al
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Express Mail No.: EL670726207US

Sheet 25 of 35

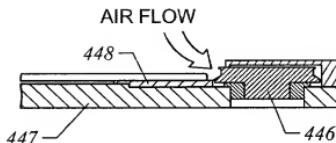


FIG. 24A

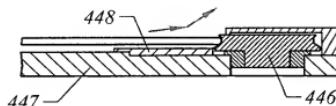


FIG. 24B

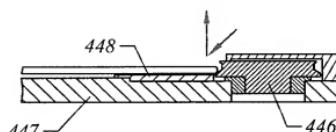


FIG. 24C

Title: WAFER ENGINE
Docket No.: ASYS8196US0
Serial No.: Unknown
Confirm No: Unknown
Filed: Herewith

Inventor(s) Anthony C. Bonora et al.
Attorney. Scott D. Sanford
Phone. (415) 362-3800
Express Mail No.: EL670726207US

Sheet 26 of 35

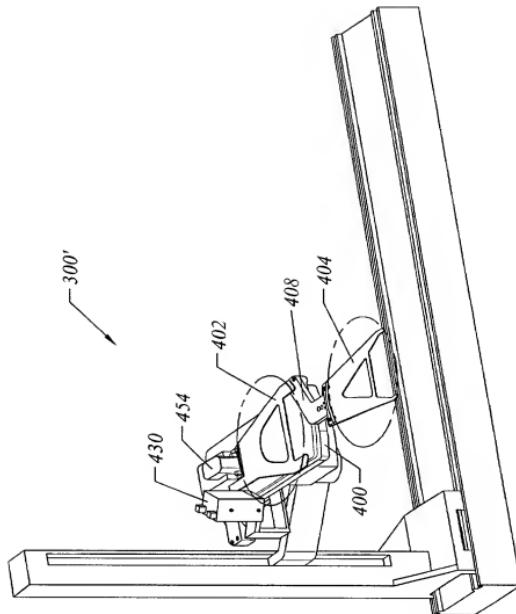


FIG. 25

Title: WAFER ENGINE
Docket No.: ASYS8196US0
Serial No.: Unknown
Confirm No.: Unknown
Filed: Herewith

Inventor(s): Anthony C. Bonora et al.
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Express Mail No.: EL670726207US

Sheet 27 of 35

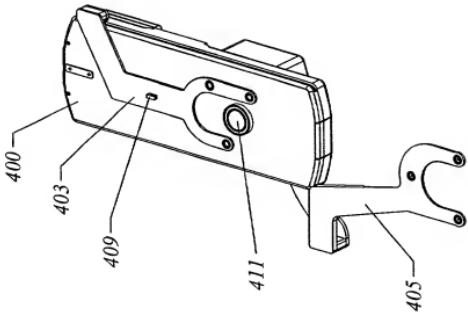


FIG. 26B

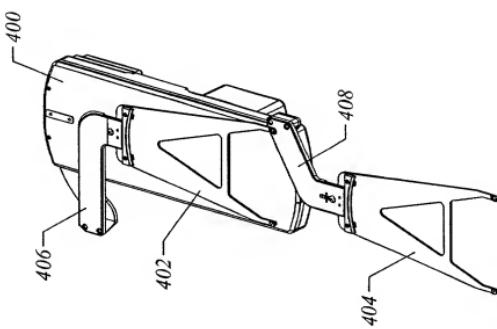


FIG. 26A

Conventional Linear Slide Robot

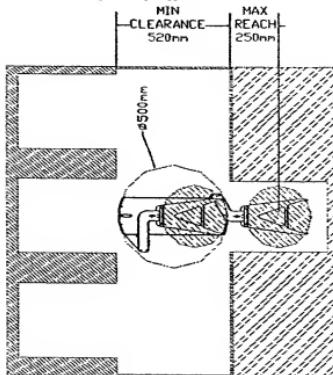


Fig. 27A

Off-Center Slide-Body (50mm offset)

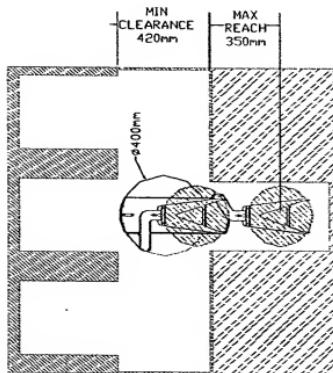


Fig. 27B

Title: WAFER ENGINE
 Docket No: ASYS8196US0
 Serial No.: Unknown
 Confirm No: Unknown
 Filed: Herewith

Inventor(s) Anthony C Bonora et al
 Attorney Scott D Sanford
 Phone (415) 362-3800
 Express Mail No. EL670726207US

Sheet 29 of 35

Example motion sequence for rapid swap slide-body with off center rotation axis.

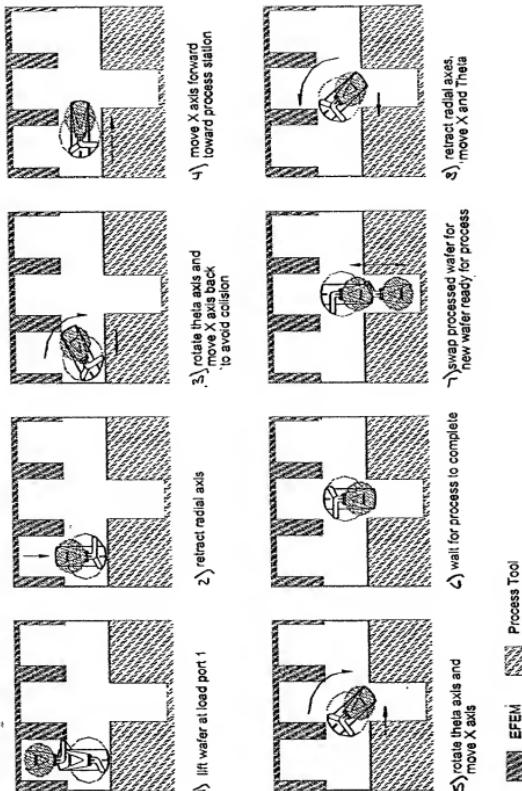
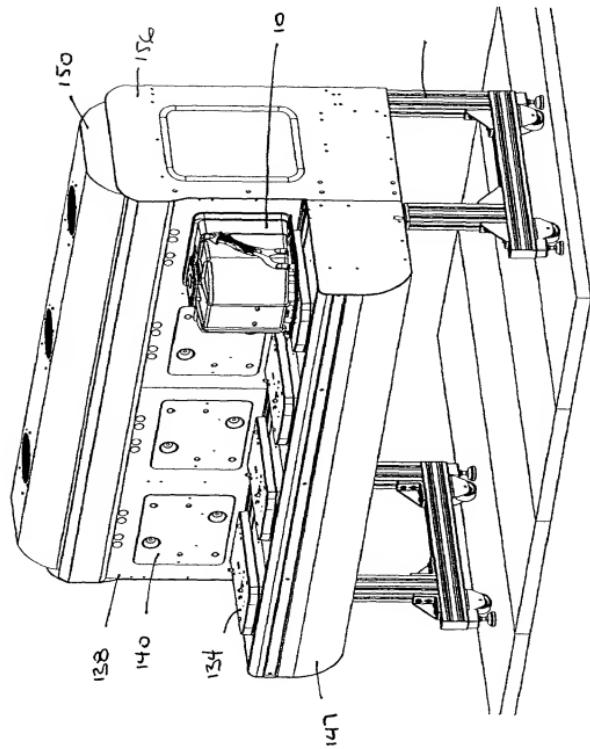


FIG. 28

Title WAFER ENGINE
Docket No. ASYSS196US0 Inventor(s) Anthony C. Bonora et al
Serial No. Unknown Attorney. Scott D. Sanford
Confirm No: Unknown Phone (415) 362-3800
Filed Herewith Express Mail No: EL670726207US
Sheet 30 of 35

10087400 - DATED 10/2



Title: WAFER ENGINE Inventor(s) Anthony C. Bonora et al
Docket No. ASYS196US0 Attorney Scott D. Sanford
Serial No. Unknown Phone (415) 362-3800
Confirm No. Unknown Express Mail No: EL670726207US
Filed: Herewith

Sheet 31 of 35

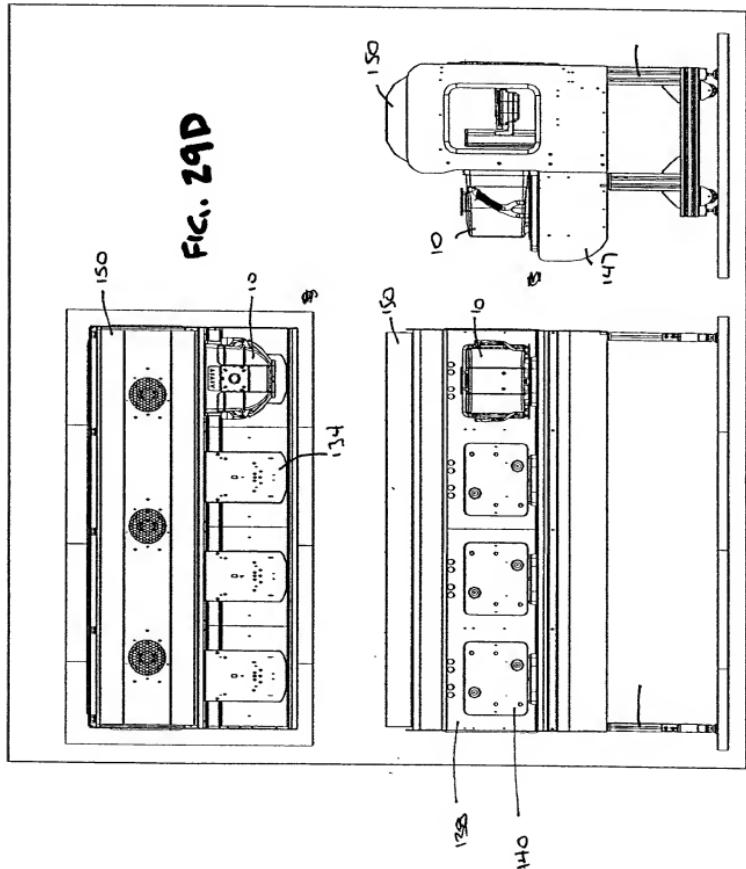


FIG. 1. 29 D

Fig. 29C

FIG. 29 B

Title: WAFER ENGINE
Docket No.: ASYSS196US0
Serial No.: Unknown
Confirm No.: Unknown
Filed: Herewith

Inventor(s): Anthony C. Bonora et al
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Express Mail No.: EL670726207US

Sheet 32 of 35

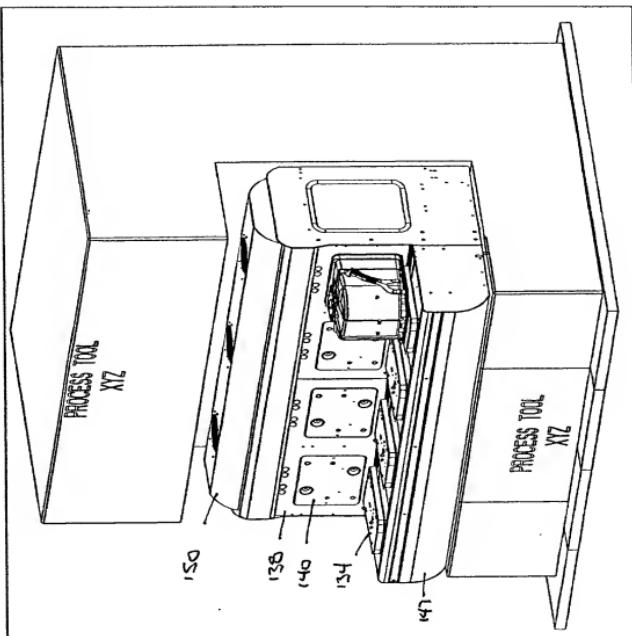


Fig. 30A

Title: WAFER ENGINE
Docket No.: ASYS8196US0
Serial No.: Unknown
Confirm No.: Unknown
Filed: Herewith

Inventor(s): Anthony C. Bonora et al
Attorney: Scott D. Sanford
Phone: (415) 362-3800
Express Mail No.: E1670726207US

Sheet 33 of 35

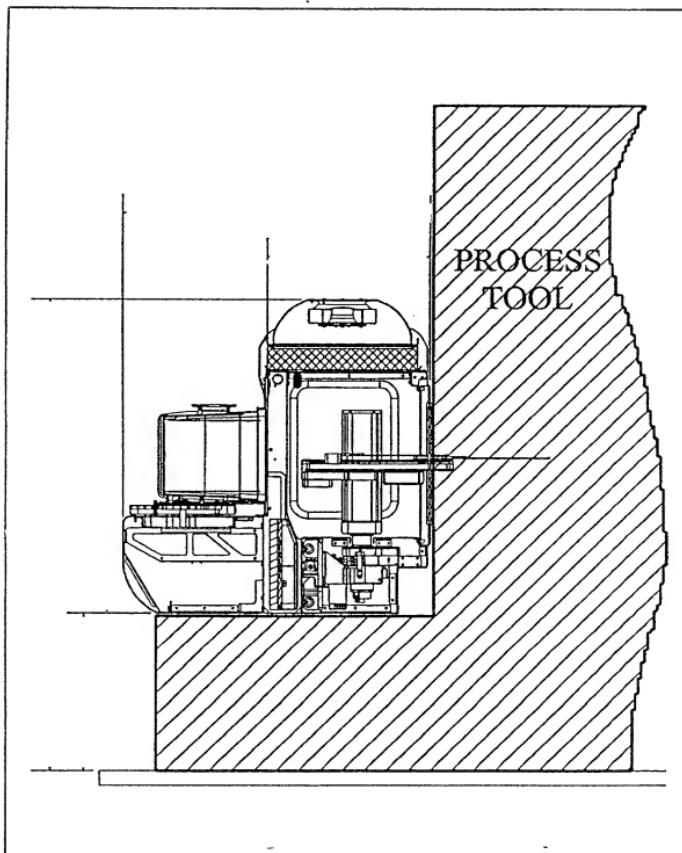


FIG. 30B

10067400,030102

Title: WAFER ENGINE Inventor(s) Anthony C. Bonora et al
Docket No. AS8196US0 Attorney Scott D. Sanford
Serial No. Unknown Phone (415) 362-3800
Confir. No. Unknown Express Mail No.: EL670726207US
Filed: Herewith Sheet 34 of 35

Sheet 34 of 35

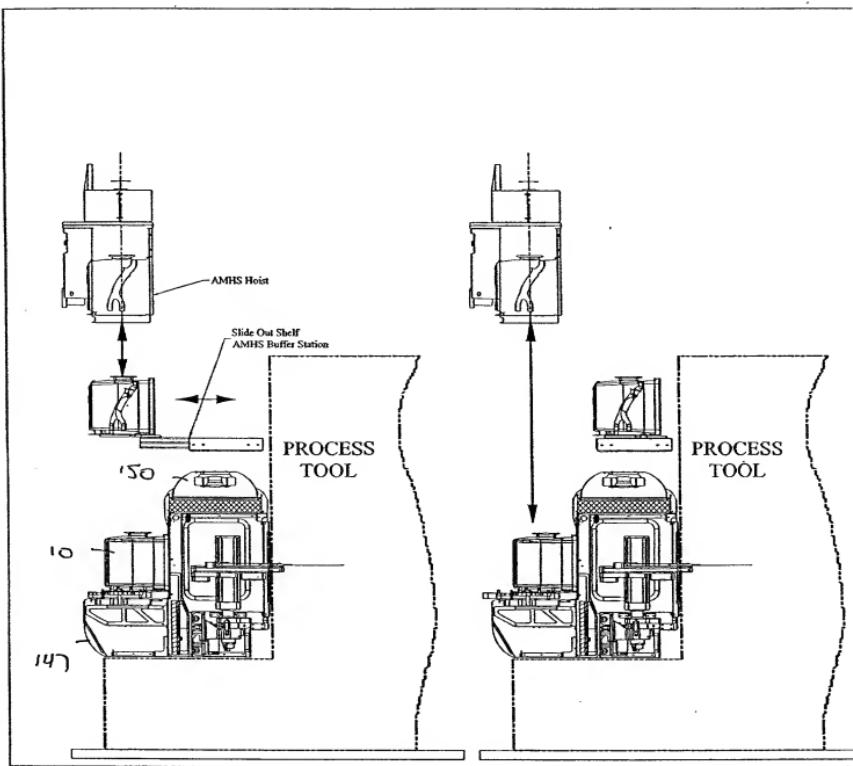


FIG. 31

Title: WAFER ENGINE
Docket No. ASYSS196US0
Serial No. Unknown
Confirm No Unknown
Filed: Herewith

Inventor(s) Anthony C. Bonora et al
Attorney Scott D. Sanford
Phone (415) 362-3800
Express Mail No. EL570726207US

Sheet 35 of 35

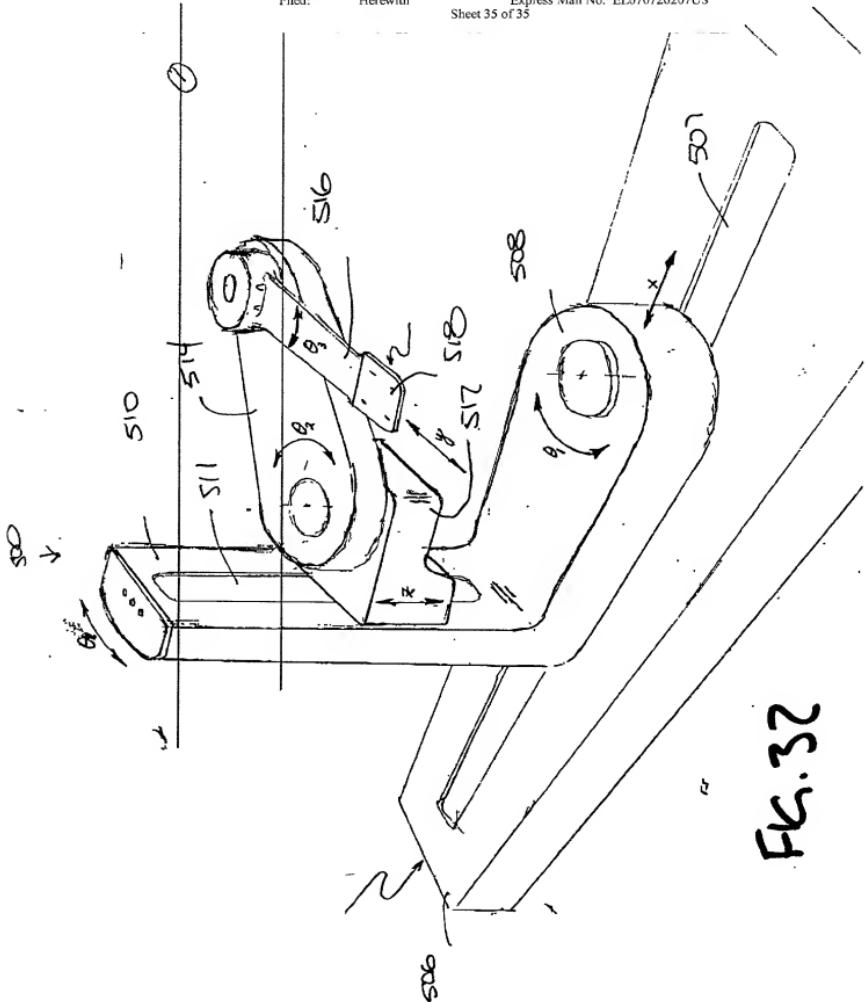


Fig. 32